

Data

Needs

Analysis



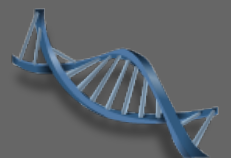
Scoping Study



CR 1154, Clay County
Replace Bridge on Mill Creek
Road over Goose Creek at
Junction with KY 1524
Item No. 11-1092.00

Prepared by the KYTC
Division of Planning District 11

October 2012



I. PRELIMINARY PROJECT INFORMATION

County:	Clay	Item No.:	11-1092
Route Number(s):	CR 1154	Road Name:	Mill Creek Road
Program No.:	8733001D	UPN:	(Function) 026 1154 000-001
Federal Project No.:	BRZ 1103 (260)	Type of Work:	Bridge Replacement
2015 Highway Plan Project Description Bridge Replacement			

Replace Bridge on Mill Creek Road (CR 1154) over Goose Creek at junction with KY 1524.

Beginning MP:	0	Ending MP:	0.035	Project Length:	0.035
Functional Class.:	<input type="checkbox"/> Urban <input type="checkbox"/> Local <input checked="" type="checkbox"/> Rural	State Class.:	<input type="checkbox"/> Primary <input type="checkbox"/> Secondary	Route is on:	<input type="checkbox"/> NHS <input type="checkbox"/> NN <input type="checkbox"/> Ext Wt
MPO Area:	Not Applicable	Truck Class.:		% Trucks:	
In TIP:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Terrain:	Rolling	Access Control:	<input type="checkbox"/> None <input type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input type="checkbox"/> Partial Spacing:
ADT (current):	(Year)	Median Type:	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type):	Existing Bike Accommodations:	Shared Lane <input type="checkbox"/> Sidewalk
Posted Speed:	<input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input checked="" type="checkbox"/> 55 mph <input type="checkbox"/> Other (Specify):	KYTC Guidelines Preliminarily Based on :	MPH Proposed Design Speed		

COMMON GEOMETRIC

Roadway Data:	EXISTING	PRACTICES*	
No. of Lanes	1	2	Existing Rdwy. Plans available? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Lane Width	11'	11'	Year of Plans: _____
Shoulder Width	0'	3'	<input checked="" type="checkbox"/> Traffic Forecast Requested Date Requested: 10/15/2012
Max. Superelevation**	n/a		<input checked="" type="checkbox"/> Mapping/Survey Requested Date Requested: _____
Minimum Radius**	n/a		Type: _____
Maximum Grade	n/a		
Minimum Sight Dist.	n/a		
Sidewalk Width(urban)	0		
Clear-zone***	n/a		

Project Notes/Design Exceptions?: _____

*Based on proposed Design Speed, **AASHTO's A Policy on Geometric Design of Highways and Streets, ***AASHTO's Roadside Design Guide

Bridge No. *:	026C00025N	Existing Geotech data available?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sufficiency Rating	32	Detour Length(s):	10 miles
Total Length	65'		
Width, curb to curb	10.8'		
Span Lengths	33.1'		
Year Built	1936		
Posted Weight Limit	10 Tons		
Structurally Deficient?	Yes	*If more than two bridges are located on the project, include additions sheets.	
Functionally Obsolete?	No		
Existing Bridge Type			

II. PROJECT PURPOSE AND NEED

A. Legislation

The following funds was listed in the 2012 General Assembly's Enacted Highway Plan.	Funding	Phase	Year	Amount
	BRZ	D	2015	\$250,000
	BRZ	R	2017	\$75,000
	BRZ	U	2017	\$50,000
	BRZ	C	2018	\$750,000

B. Project Status

Design funds for this project have been authorized. This project is for the replacement of a structurally deficient bridge at 0.02 Mile Point.

C. System Linkage

CR 1154 connects numerous residents, a church and fire station in the Brightshade community in southern Clay county to the rest of the county. The vicinity map can be seen on page 6.

D. Modal Interrelationships

CR 1154 has no known modal interrelationships.

E. Social Demands & Economic Development

CR 1154 provides local residents access to KY 1524 and various parts of Clay County.

F. Transportation Demand

There is no known traffic count information for this county route.

II. PROJECT PURPOSE AND NEED (cont.)

G. Capacity

This bridge is one lane with no shoulder or guardrail.

H. Safety

There is no known accidents on this route, however the bridge is classified as structurally deficient.

I. Roadway Deficiencies

The bridge is classified as structurally deficient. According to the Structure Inventory and Appraisal Sheet, the one lane bridge received an intolerable rating for deck geometry. The bridge was built in 1936.

Draft Purpose and Need Statement:

Need: This bridge is structually deficient. It has a sufficiency rating of 32.

Purpose: By replacing the bridge, CR 1154 in Clay County will allow safer and more reliable access for the local community.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW

A. Air Quality

Project is in: Attainment area Nonattainment or Maintenance Area PM 2.5 County

STIP Pg.#: 30 of 2012 Plan TIP Pg.#:

Clay Co is attainment for all monitored air pollutants. Air quality during construction will be controlled with good construction practices.

B. Archeology/Historic Resources

Known Archeological or Historic Resources are present

A phase I archaeological survey will determine cultural significance and if eligible sites are located in the project footprint. No historic resources have been identified. Ogle Quad, 1979, -83.658110 37.020032 Decimal Degrees

C. Threatened and Endangered Species

The USGS Quadrangle is Ogle. Current species listed for Clay County are Indiana bat, rabbitsfoot, little spectaclecase, snuffbox and Kentucky arrow darter. Future study will address the requirements of USFWS and prevent detriment to the protected species.

D. Hazardous Materials

Potentially Contaminated Sites are present Potential Bridge or Structure Demolition

Fueling stations or where petroleum products have been used can be identified for hazardous materials during phase I investigations and determine if phase II will be necessary. Other possible hazardous materials to investigate will be asbestos in structures.

E. Permitting

Check all that may apply: Waters of the US MS4 area Floodplain Impacts Navigable Waters of the US Impacts
Are 401/404 Permits likely to be required? Yes No Impacts to: Wetlands Stream/Lake/Pond
 ACE LON ACE NW ACE IP DOW IWQC Special Use Waters

The USGS Quadrangle is Ogle. Goose Creek and Mill Creek which is adjacent to the project are not listed as special use waters at this location near river MP 37.7 on Goose Creek. A water of the United States, Goose Creek, with impacts below ordinary high water will require coordination with the officers of the CORP and DOW. Construction activities may need a USACE 404 permit and a DOW 401 permit. Additionally, a surface water KYR 10 permit may be required for construction disturbance.

F. Noise

Are existing or planned noise sensitive receptors adjacent to the proposed project? Yes No
Is this considered a "Type I Project" according to the [KYTC Noise Analysis and Abatement Policy?](#) Yes No

Bridge Replacement

G. Socioeconomic

Check all that may apply: Low Income/Minority Populations affected Relocations Local Land Use Plan available

Do not expect relocations.

H. Section 4(f) or 6(f) Resources

The following are present on the project: Section 4(f) Resources Section 6(f) Resources

None expected.

Anticipated Environmental Document:

CE Level 1

IV. PROJECT SCOPING

Current Estimate	
Phase	Estimate
Planning	---
Design	\$250,000
R/W	\$34,000
Utilites	\$35,000
Const	\$452,000
Total	\$771,000

The project team has decided this bridge does need to be replaced. Upon site visit, the project team discussed possible alternatives as to where to locate the bridge. The bridge could not be shifted to the west due to a contributory stream flowing into Goose Creek adjacent to CR 1154. If the bridge is re-aligned to the east of the existing bridge, then sight distance is decreased in addition to conflicts with a resident’s driveway connecting to KY 1524. It has been determined the best alternate is to replace the bridge in the existing location. A diversion will be needed during construction. The diversion will utilize portions of two driveways and cross the creek in a narrower area.



VI. Tables and Exhibits

